



Federal Aviation Administration

Memorandum

Date: October 7, 2009

To: Lance T. Gant, Manager, Rotorcraft Certification Office, ASW-170

From: Mark R. Schilling, Acting Manager, Rotorcraft Directorate, ASW-100

Prepared by: Sharon Miles, Rotorcraft Regulations and Policy Group, ASW-111

Subject: Equivalent Level of Safety (ELOS) Finding for HELIFAB Inc.'s FAA project SA2975RC-R on Bell 206L-1, L-3, and L-4 helicopter models

ELOS Memo No.: SA2975RC- R/C-1

Regulatory Ref: Title 14 Code of Federal Regulations (14 CFR) 27.805(a), 14 CFR 27.805(b), 14 CFR 27.807(a), 14 CFR 27.807(b)(1), 14 CFR 27.807(b)(2), & 14 CFR 27.807(b)(3)

This memorandum documents concurrence with an ELOS finding for HELIFAB Inc.'s FAA project SA2975RC-R on Bell 206L-1, L-3, and L-4 helicopter models.

Background

HELIFAB, Inc. currently holds a Supplemental Type Certificate (STC) for a litter installation on the Bell 206L-1, L-3, and L-4 helicopter models. The original STC for the litter installation included the requirement for an emergency evacuation demonstration for both the cockpit and passenger compartments. The carry-on medical equipment mount installations proposed by HELIFAB, Inc. would be used to mount carry-on medical equipment such as incubators and oxygen bottles. Some equipment secured on these mounts will obstruct access to the flight crew and passenger required emergency exits.

The installation of the proposed configuration may adversely affect rapid crew and passenger emergency evacuation for the following reasons:

- Flight crew emergency exit accessibility would not be compliant with §§27.805(a) and 27.805(b) due to obstructions near one of the flight crew emergency exits.
- Passenger emergency exit accessibility and usability would not be compliant with §§27.807(a) and 27.807(b)(1) due to obstructions near the passenger emergency exit.
- Passenger emergency exit usability would not be compliant with §§27.807(b)(2) and 27.807(b)(3) due to obstructions near the passenger emergency exit.

Applicable Regulation(s)

14 CFR Part 27 at Amendment 27-37 for §27.805(a) and §27.805(b), and 14 CFR Part 27 at Amendment 27-26 for §27.807(a) and §27.807(b)(1), §27.807(b)(2), and §27.807(b)(3).

Regulation(s) requiring an ELOS finding

§§27.805 at Amendment 27-37 and §§27.807 at Amendment 27-26

Description of compensating design features or alternative Methods of Compliance (MOC) which allow the granting of the ELOS (including design changes, limitations or equipment need for equivalency)

Although the HELIFAB, Inc. carry-on medical equipment mount installations would result in a noncompliance with the requirements of §§27.805(a), 27.805(b), 27.807(a), 27.807(b)(1), 27.807(b)(2), and 27.807(b)(3), an equivalent level of safety finding can be based on the successful accomplishment of an emergency evacuation test. HELIFAB, Inc. conducted an emergency evacuation test using a Bell 206L-1 helicopter model on July 29, 2009. The test helicopter was configured with the actual infant incubator and oxygen containment shroud and demonstrated that the flight crew emergency exits are of sufficient size to allow the rapid evacuation of the flight crew. The test also demonstrated that the passenger exit is an acceptable size and is easily accessible for passenger egress and has simple and obvious methods of opening that requires no exceptional effort for rapid passenger evacuation.

Explanation of how design features or alternative Methods of Compliance (MOC) provide an equivalent level of safety to the level of safety intended by the regulation

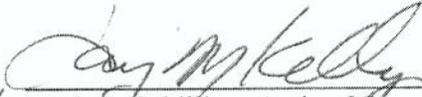
The Rotorcraft Certification Office has determined, based on the aforementioned method of compliance that the design does provide an overall level of safety for the occupant emergency egress equivalent to §§27.805(a), 27.805(b), 27.807(a), 27.807(b)(1), 27.807(b)(2), and 27.807(b)(3).

FAA approval and documentation of the ELOS finding:

The FAA has approved the aforementioned ELOS finding in project issue paper C-1. This memorandum provides standardized documentation of the ELOS finding that is non-proprietary and can be made available to the public. The Rotorcraft Directorate has assigned a unique ELOS memorandum number (see front page) to facilitate archiving and retrieval of this ELOS. This ELOS memorandum should be listed in the STC data sheet under the certification basis section. As example:

Equivalent Safety Finding has been made for the following regulation:

14 CFR Part 27 at Amendment 27-37 for §27.805(a) and §27.805(b), and 14 CFR Part 27 at Amendment 27-26 for §27.807(a) and §27.807(b)(1), §27.807(b)(2), and §27.807(b)(3) documented in ELOS memo SA2975RC-R/C-1.



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Aircraft Certification Service, ASW-100

10/07/2009

Date

10/7/09